FUNGI WALK at Penn Wood on November 2nd, 2024

Report by Jackie Mackenzie-Dodds

Image: Justin Warhurst.

Image: Alexandra Lea

19 of us met up in the car park of the picturesque Holy Trinity Church, Penn Street on a cool cloudy slightly drizzly morning after Halloween the night before. We assembled near the ominous trio of wooden crosses next to the church and ruminated on the word that fungi were extremely thin on the ground this year, in Penn Wood in particular, so we had a challenge on our hands!

We were also missing our esteemed BFG Leaders (Penny and Derek) who were in the Forest of Dean at the British Mycological Society Autumn Meeting, and despite several experienced field mycology people attending, the co-leaders for the day (Sarah, Jackie and Jesper) felt the loss and the challenge and promised everyone they'd do their best to find and identify fungi for the group.

As in previous years when fungal fruiting had been disappointing at this site, we headed straight for the churchyard, leaving the vicarage lawn for a quick check on our return to the car park at the end of the walk. The churchyard has always been good for waxcaps at this time of year, and although numbers have been declining in recent years, we found some stunning waxcap specimens plus many other species, and we spent much longer here than anticipated, amassing 31 species in total before we had even entered the adjacent woodland.

9 waxcap species were found in the churchyard including the spectacular ***Porpolomopsis calyptriformis*** (Ballerina/Pink waxcap) which prompted lots of oohs and aahs, posing nicely for photographers in its flounced tutu:

Image: Leigh McMahon

Image: Barry Webb

A variety of fungal protrusions emerged from the churchyard grass including corals, clubs and earthtongues, all needing microscopy to identify correctly. Sarah and Jesper were handed several yellow clubs (also found on the cricket pitch later), and later confirmed three *Clavulinopsis* species were present: ***C. helvola, C. luteoalba*** *and* ***C. laeticolour*** (Yellow, Apricot and Handsome Club Fungi respectively). See image below LHS.

John Catterson found a *Dermoloma* species in the churchyard, which also appeared on the cricket pitch (see below), both identified by Jesper as ***Dermoloma cuneifolium*** (Crazed Cap), shown below RHS image, with a 'young' smooth cap and a more mature cap showing the 'crazed' surface:

Club fungi: Image: Leigh McMahon

D.cuneifolium image: John Catterson (taken on cricket pitch)

An Ascomycete genus *Geoglossum* (Earthtongue) fruiting in the churchyard has been the subject of great interest and speculation over the years, starting with an ID of *G. umbratile* (Plain Earthtongue), changed to *G. cookeanum* (no common name), and suggesting *G. simile* (from spore characters), the last determination a much rarer species in need of DNA sequencing for confirmation. We were on the lookout and very keen to find them again this year as DNA sequencing hasn't been successful. Disappointingly we will have to wait another year to solve this mystery as the area these undetermined earthtongues grow was not producing. However several other earthtongues were found nearby, and Sarah and Jesper took them home for microscopy work, carefully examining asci, spore and paraphysis shape, colouration (with stains e.g., red tips with Lugol) dimensions and ratios. Rather disappointingly, all the collections turned out to be ***Trichoglossom hirstum*** (Hairy Earth Tongue) a more common earthtongue species, but nevertheless all admired by the whole group with many photographs taken:

Image: Claire Williams.

Image: Leigh McMahon.

Jesper was 'gifted' a hefty number of *Galerina* in the graveyard, a tricky genus to ID, all of which require microscopy to ID. Jesper confirmed ***G. clavata*** (image below, also found on the cricket pitch), ***G. atkinsoniana***, and ***G. vittiformis*** all present***.***

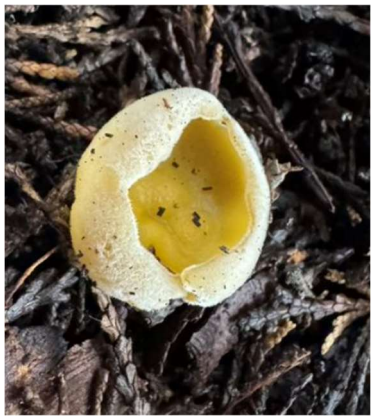
Image: Jesper Launder

The area under the large Cypress tree in the churchyard hosted some delights for us, in particular two species found by Justin (always eager to get 'find of the day'!), a couple of beautiful Lepiota

specimens in great condition, which Jesper identified as ***Lepiota ochraceofulva*** (no common name) – image below:

Image: Justin Warhurst

….. and very excitingly, the uncommon coniferous associated species ***Sowerbyella radiculata*** (no common name) – which was last recorded here in 2010 - images below:



Images: Leigh McMahon

Image: Justin Warhurst

Another intriguing little coral, a suspected '*Ramaria*' specimen, was found under the Cypress by Bob and worked on by Jim, who reported that it coloured green when stroked with an FeSO4 crystal, it had warty ellipsoid spores averaging 7.4 x3.7 uM (see image below), and had at least some clamps in the flesh. He had thought that only *Ramaria* corals colour green with FeSO4, but then saw that the genus *Phaeoclavulina* also does, and at least one *Phaeoclavulina* has the right general appearance and spore size as our specimen and can associate with conifers. He thought that perhaps the strongest possibility would be *Ramaria gracilis*, although there was no aniseed odour distinctive for this species. On her return from the BMS meeting, Penny was quick to catch up (!), and confirmed that quite a few '*Ramaria*' species have been moved into *Phaeoclavulina*, particularly the species which turn green with FeSO4, and as the spore size and substrate appears to fit with ***Phaeoclavulina***

flaccida, that species is the likeliest contender, but needs to be DNA sequenced (Jim has the dry specimen available for this).

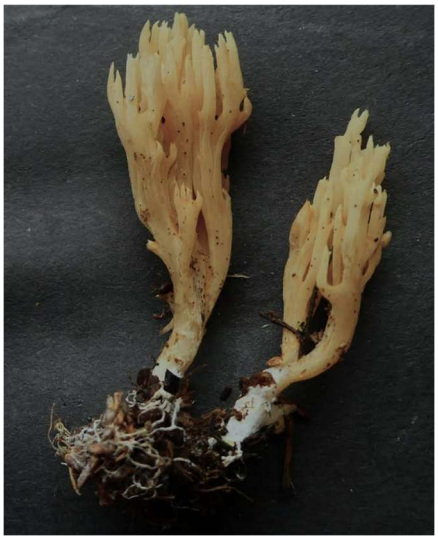


Image: Jim Wills

Image Jim Wills: *P.flaccida* spores.

John came across an interesting *Pluteus* species on a Yew log, and knew it was something worth investigating. Bob examined it microscopically and saw hooked pleurocystidia and clamps on some hyphae with spores matching ***Pluteus pouzarianus*** (Conifer Shield). Unfortunately, there is no image for this here.

The group had to reluctantly tear themselves away from the churchyard and move on to the woodland, where we found an astounding (considering the poor conditions) 68 species, which is testament to beady eyes, tenacity and enthusiasm of the group. Jesper commented on the complete absence of edible fungi, and was very relieved this wasn't a group searching and expecting us to find these species for them – they'd have gone home very quickly!

We don't have many images from the woodland for this report, but here are some images of some of the favourite species we found:

Chlorociboria aeruginascens (Green Elf Cup):

Clavulina coralloides (Crested Coral):

Image: Leigh McMahon

Calocera viscosa (Yellow Stagshorn):

Image: Alexandra Lea

Image: May Tang

Russula cyanoxantha (Charcoal Burner):

Image: Alexandra Lea

As well as many familiar fungi (see more on the List) we found some other interesting species which gave us lots of homework. One intriguing 'mould-like' specimen found by Sarah on beech leaves, whitish at first but turned dusky pink in the woods then ochre later, needed some thorough investigation. After careful examination at home Sarah finally ID'd this as ***Chromelosporium ochraceum*** *(*turns from pink to ochre as compared with *C. carneum*, which stays pink*)*, a Family Pezizaceae anamorph with no common name and no image here but was recorded on our walk at Mousells Wood earlier this year; there is a picture included in that report.

Yen proudly produced an earthball in the woodland, a *Scleroderma* species, which had been hiding in the leaf litter and was well past its sell by date, most spores having blown out long ago, but a lovely specimen, so Earthball Bob took it home to identify properly. He managed to find a few spores in the hollowed-out case and confirmed ***Scleroderma verrucosum***, also supported by the structure of the stem and having no dark leopard lines.

Yen and Paul also found an interesting *Cortinarius* under oak and beech in the woodland. Jesper took the specimen home and found that with small subglobose spores it keyed out to ***C.* cf. *balaustinus*** (no common name, no image here) with a reasonable match but not 100%, so dry material was prepared in case future confirmation is needed.

Leigh (by far the most prolific collector of the day – see LM entries on the List!) found a medium sized polypore on a conifer stump. Jesper recalled finding ***Postia guttulata*** (no common name, no image here, but as the name suggests it likes to 'ooze/guttate'), a rather rare species of brown rot fungus associated with conifer plantations, in that area couple of years ago, and it proved to be the same species. Sadly, the specimen wasn't in good condition to be retained, but useful to report here.

Everyone marvelled at the gorgeous ***Marasmius hudsonii*** (Holly Parachute), on dead Holly leaves, captured beautifully below by Barry:

We eventually emerged from the woodland through a little gateway onto the cricket pitch, which is renowned for spectacular displays of waxcaps at this time of year. As mentioned before, there appears to have been a decline in numbers, no one really knows why, climate change, different management, chemicals etc, but happily for us this year the waxcap fruiting was abundant (despite

the grass mower 2 days beforehand!), with coloured clusters sprinkled over the entire grassy area, immediately visible from quite a distance.

Hiding and perfectly camouflaged in the grass, we found several dark green shiny ***Gliophorus psittacinus,*** Parrot waxcaps, a definite crowd pleaser, with some turning orange as they age/wash out in the rain – see images below (you can never see too many of these!):

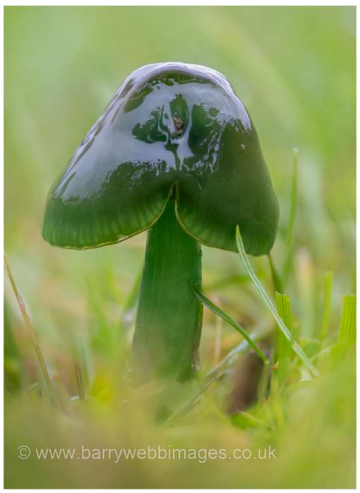


Image: Barry Webb

Image: Alexandra Lea

Image: Justin Warhurst

Image: Justin Warhurst

Image: Leigh McMahon

Sarah was in her element amongst the waxcaps, tasting and smelling them as they were offered to her for identification. A waxcap she thought looked like ***Hygrocybe mucronella*** in the field (Bitter waxcap) did not make her tongue curl upon licking it (the field diagnostic test for it) which made her think 'oh well in that case I have no idea'! So, she took it home and did the microscopy and keyed it out using Boertmann and the Sussex online waxcap tool and it came back as Bitter waxcap…. She scratched her head and rechecked several avenues... Then she eventually tasted it again and bingo! – an extremely bitter taste confirmed *H. mucronella*!

Perhaps down to different land use in each area, we found an interesting distribution of different waxcap species across the 2 waxcap areas in the Penn Wood site. We found 9 different waxcap species on the cricket pitch, a much larger area than the churchyard where we had also found 9 species earlier in the morning. Only 3 species were found in both areas: ***Cuphophyllus virgineus*** (Snowy waxcap), ***Hygrocybe coccinea*** (Scarlet waxcap) and ***Hygrocybe insipida*** (Spangle waxcap). 6 species were found only on the cricket pitch: ***Gliophorus laetus*** (Heath waxcap – image shown

below), ***Gliophorus psittacinus*** (Parrot waxcap), ***Hygrocybe chlorophana*** (Golden waxcap), ***Hygrocybe mucronella*** (Bitter waxcap), ***Hygrocybe quieta*** (Oily waxcap) and ***Hygrocybe reidii*** (Honey waxcap). 6 species were found only in the churchyard: ***Cuphophyllus pratensis*** (Meadow waxcap), ***Gliophorus irrigatus*** (Slimy waxcap), ***Hygrocybe conica*** (Blackening waxcap), ***Hygrocybe glutinipes*** (Glutinous waxcap) ***Hygrocybe russocoriacea*** (Cedarwood waxcap) and ***Porpolomopsis calyptriformis*** (Ballerina/Pink waxcap).

Gliophorus laetus (Heath waxcap) Image: Sarah Jayne Ebdon

Unsurprisingly the waxcaps were the stars of the show, but we did see some other interesting fungi on the cricket pitch, including an *Entoloma* found by John. Sarah suspected it was ***Entoloma conferendum*** (Star Pinkgill) and took it home to confirm by looking for the distinctive knobbly star shaped spores, that lend this species its common name, specimen shown below:

Image: John Catterson

A Puffball found in the grass on the cricket pitch was taken home by Bob and confirmed by microscopy (smooth spores), along with lack of gleba membrane and correct surface structure for the species, as ***Lycoperdon utriforme*** (Mosiac Puffball, no image here).

Last, but by no means least, we found and collected 5 Myxomycete species from the woodland areas, for which wonderful images, as ever, were taken by Barry Webb shown below.

Kath Castillo and Justin Warhurst prepared samples from each of these species for flash freezing in a portable liquid nitrogen dry shipper (-150°C) brought with us in a backpack. These frozen samples, along with traditionally curated dry sample duplicates of the same specimens, will be deposited into the Natural History Museum collections in London, updating and complementing the existing Myxomycete collections there. Our frozen samples will enable molecular research including whole genome sequencing of Myxomycetes.

Arcyria cf *denudata* above.

Hemitrichia cf *decipiens* above.

Didymium squamulosum above.

Didymium clavus above.

Physarum album above.

Images above: Barry Webb.

In summary we found an amazing number of species in what has turned out to be a very poor year for fungi generally, i.e., 115 species (discounting duplicates), including some really stunning specimens. This report shows the highlights of the fungi walk, for details of all other species found, see the List on the website. At this point we'd like to say a huge thank you to everyone who came along and supported us – we couldn't have done it without all of you helping us with identifications, data collection and brilliant photographs – thank you! And very special thanks to Jesper, without whom our species tally would've been MUCH lower!